

OIPE

RAW SEQUENCE LISTING DATE: 01/26/2002 PATENT APPLICATION: US/09/896,522 TIME: 16:07:13

Input Set : N:\jumbos\896522.txt

|  | cksmann, Maria A.<br>TION: 57658, A NOVEL HUMAN URIDINE KINASE AND |       |
|--|--|-------|
| 6 USES THEREOF                                   | 201552001700   |       |
| 8 <130> FILE REFERENCE                           |  |       |
| 10 <140> CURRENT APPLIC                          | ATION NUMBER: 09/896,522   |       |
| 13 <150> PRIOR APPLICAT                          |  |       |
| 14 <151> PRIOR FILING D                          |  |       |
| 16 <160> NUMBER OF SEQ                           |  |       |
|  | SEQ for Windows Version 4.0  |       |
| 20 <210> SEQ ID NO: 1                            |  |       |
| 21 <211> LENGTH: 1624                            |  |       |
| 22 <212> TYPE: DNA                               |  |       |
| 23 <213> ORGANISM: Homo                          | sapiens  |       |
| 25 <220> FEATURE:                                |  |       |
| 26 <221> NAME/KEY: CDS                           | (027)  |       |
| 27 <222> LOCATION: (94)                          | (927)  |       |
| 29 <400> SEQUENCE: 1                             | c ggcgctgggc gggcgcgccg ggcccgggga aggggcgggc                      | 60    |
| 31 geggggeege etecgaeee                          | g agoggaggoo gag atg got tog gog gga ggo gaa                       | 114   |
| 32   | Met Ala Ser Ala Gly Glu  |       |
| 33   | 1 5  |       |
| 35 gac tgc gag agc ccc                           | geg eeg gag gee gae egt eeg eac eag egg eec                        | 162   |
| 36 Asp Cys Glu Ser Pro                           | Ala Pro Glu Ala Asp Arg Pro His Gln Arg Pro                        |       |
| 37 10  | 15 20  | 0.1.0 |
| 39 ttc ctg ata ggg gtg                           | age gge gge act gee age ggg aag teg ace gtg                        | 210   |
|  | Ser Gly Gly Thr Ala Ser Gly Lys Ser Thr Val                        |       |
| 41 25  | 30 35  | 258   |
| 43 tgt gag aag atc atg                           | gag ttg ctg gga cag aac gag gtg gaa cag cgg                        | 230   |
|  | Glu Leu Leu Gly Gln Asn Glu Val Glu Gln Arg 45 50 55               |       |
| 45 40  | atc ctg agc cag gac agg ttc tac aag gtc ctg                        | 306   |
| 47 Cay Cyy aay gry gro<br>48 Cln Arg Tye Val Val | Ile Leu Ser Gln Asp Arg Phe Tyr Lys Val Leu                        |       |
| 49 60  | 65 70  |       |
|  | gcc aag gcc ttg aaa gga cag tac aat ttt gac                        | 354   |
| 52 Thr Ala Glu Gln Lys                           | Ala Lys Ala Leu Lys Gly Gln Tyr Asn Phe Asp                        |       |
| 53 75  | 80 85  |       |
| 55 cat cca gat gcc ttt                           | gat aat gat ttg atg cac agg act ctg aag aac                        | 402   |
| 56 His Pro Asp Ala Phe                           | Asp Asn Asp Leu Met His Arg Thr Leu Lys Asn                        |       |
| 57 90  | 95 100   | 450   |
| 59 atc gtg gag ggc aaa                           | acg gtg gag gtg ccg acc tat gat ttt gtg aca                        | 450   |
|  | Thr Val Glu Val Pro Thr Tyr Asp Phe Val Thr                        |       |
| 61 105   | 110 115  |       |

Input Set : N:\jumbos\896522.txt

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63 cac tca agg tta cca gag acc acg gtg gtc tac cct gcg gac gtg gtt
                                                                         498
64 His Ser Arg Leu Pro Glu Thr Thr Val Val Tyr Pro Ala Asp Val Val
                       125
                                           130
                                                                         546
67 ctg ttt gag ggc atc ttg gtg ttc tac agc cag gag atc cgg gac atg
68 Leu Phe Glu Gly Ile Leu Val Phe Tyr Ser Gln Glu Ile Arg Asp Met
                   140
                                       145
71 ttc cac ctg cgc ctc ttc gtg gac acc gac tcc gac gtc agg ctg tct
                                                                         594
72 Phe His Leu Arg Leu Phe Val Asp Thr Asp Ser Asp Val Arg Leu Ser
                                   160
               155
75 cga aga gtt ctc cgg gac gtg cgc cga ggg agg gac ctg gag cag att
                                                                         642
76 Arg Arg Val Leu Arg Asp Val Arg Arg Gly Arg Asp Leu Glu Gln Ile
                               175
          170
                                                                         690
79 ctq acq caq tac acc acc ttc gtg aag ccg gcc ttc gag gag ttc tgc
80 Leu Thr Gln Tyr Thr Thr Phe Val Lys Pro Ala Phe Glu Glu Phe Cys
                           190
                                               195
                                                                         738
83 ctq ccq aca aag aag tat gcc gat gtg atc atc cca cga gga gtg gac
84 Leu Pro Thr Lys Lys Tyr Ala Asp Val Ile Ile Pro Arg Gly Val Asp
                       205
                                           210
                                                                215
85 200
87 aat atg gtt gcc atc aac ctg atc gtg cag cac atc cag gac att ctg
                                                                         786
88 Asn Met Val Ala Ile Asn Leu Ile Val Gln His Ile Gln Asp Ile Leu
                                       225
                   220
91 aat ggt gac atc tgc aaa tgg cac cga gga ggg tcc aat ggg cgg agc
                                                                         834
92 Asn Gly Asp Ile Cys Lys Trp His Arg Gly Gly Ser Asn Gly Arg Ser
                                   240
               235
95 tac aag cgg acc ttt tct gag cca ggg gac cac cct ggg atg ctg acc
                                                                         882
96 Tyr Lys Arg Thr Phe Ser Glu Pro Gly Asp His Pro Gly Met Leu Thr
                                                   260
                               255
97
           250
                                                                         927
99 tot ggc aaa cgg toa cat ttg gag too agc aga ccc cac tga
100 Ser Gly Lys Arg Ser His Leu Glu Ser Ser Ser Arg Pro His *
                            270
103 ggggctgccg agcctcaggg caggtctccc gcccggcatg tgtgttcagg gactgagcct
                                                                          987
                                                                         1047
104 ggggacgccc acccacaccc actgcttcct ctcggcgcac cccaggggag tgttagcagc
105 gaggeettee teacteagga gtggaaacte agatgtgtea eteagaetea aettgetggg
                                                                         1107
106 acactgacag gcgttcctga ggttttcagc cacttaggct cgttgcggtt taaagatccc
                                                                         1167
107 tctaggtcac tgagaaatgc cacagaatgt gcaggaagcc tgggaggctt ctgtgaggaa
                                                                         1227
                                                                         1287
108 tgtgaggcac attattgggg aaattgagga gacagcctag acactggctg gcctgatgtt
109 ttgttgacag tgaacccaca gtgggagaga gttttttcca gtctgatctg gttcttacac
                                                                         1347
110 actcacaca ataactcaaa agttttgtga acaagtactt tcctttttta catgttacat
                                                                         1407
111 gtcctcatgt tttctgtttt ctgtttcata acacaaggct ggttgtggcc tacaaaccta
                                                                         1467
112 atttcatgac ccagtggttt gcagtccagc gtggcctaca cggatatggg gagccactga
                                                                         1527
113 gggatgtttt cccccttgc ttgtgcctta aaggcagaga agcgaggcgg atgccctgga
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114 agcacccagc atcacaccca ggcttgtgcg gggccag
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117 <211> LENGTH: 277
118 <212> TYPE: PRT
119 <213> ORGANISM: Homo sapiens
121 <400> SEQUENCE: 2
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123 1
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Input Set : N:\jumbos\896522.txt

|     | _         | _         | _           |        |           | _     | <b>-</b>    |       | <b>-</b> | -1.      | ~3           | **- 3        | <b>^</b>     | ~1    | <b>-1</b> | m1     |   |     |
|-----|-----------|-----------|-------------|--------|-----------|-------|-------------|-------|----------|----------|--------------|--------------|--------------|-------|-----------|--------|---|-----|
|     | Asp       | Arg       | Pro         |        | GIn       | Arg   | Pro         | Pne   |          | тте      | GIĀ          | vai          | ser          |       | Gly       | Thr    |   |     |
| 125 | -1.       | <b>a</b>  | <b>01</b>   | 20     | 0         | m1    | 17- 1       | G     | 25       | <b>+</b> | <b>7</b> 1 - | 14 - A       | <b>~1</b>    | 30    | T         | C1     |   |     |
|     | Ala       | Ser       | _           | гла    | ser       | THE   | vaı         |       | GIU      | гуу      | TTE          | met          |              | ьeu   | Leu       | GTÄ    |   |     |
| 127 | <b>61</b> |           | 35          | 37 - J | <b>01</b> | ~1 ·- | <b>&gt;</b> | 40    | 3        | T        | 171          | 37a 1        | 45<br>T10    | T 411 | C         | C1 m   |   |     |
|     | GIn       |           | GIU         | vaı    | GIU       | GIN   |             | GIN   | Arg      | гаг      | vaı          |              | TTE          | ьeu   | Ser       | GIN    |   |     |
| 129 |           | 50        | <b>5</b> 1. | m      | <b>.</b>  | 77- 1 | 55          | m)    | . 1      | 01       | <b>01</b>    | 60           | <b>.</b> 1 - | T     | 31-       | T      |   |     |
|     | -         | arg       | Pne         | туr    | гÀг       |       | Leu         | Thr   | Ата      | GIU      |              | гĀг          | ALA          | ьys   | Ala       |        |   |     |
| 131 |           | <b>01</b> | 01          | m      |           | 70    |             | *** _ | D        | 3        | 75           | <b>5</b> 4 - | 3            |       | 3         | 80     |   |     |
|     | гла       | GLY       | GIn         | туr    |           | Pne   | Asp         | HIS   | Pro      |          | Ата          | Pne          | Asp          | Asn   | Asp       | Leu    |   |     |
| 133 |           | <b></b>   | _           | ~.     | 85        | _     |             | -,    |          | 90       | <b>41.</b>   | <b>.</b>     | <b></b>      | **- 7 | 95        | **- 1  |   |     |
|     | Met       | Hls       | Arg         |        | ьeu       | гĀг   | ASN         | TTE   |          | GIU      | GTĀ          | гаг          | THE          |       | Glu       | val    |   |     |
| 135 | _         |           | _           | 100    |           | 1     |             |       | 105      | _        | _            | _            |              | 110   | <b></b> 1 | 1      |   |     |
|     | Pro       | Thr       | _           | Asp    | Phe       | Val   | Thr         |       | Ser      | Arg      | Leu          | Pro          |              | Thr   | Thr       | vaı    |   |     |
| 137 | <b>_</b>  | _         | 115         |        | _         |       |             | 120   | _,       |          | _,           | _,           | 125          |       |           |        |   |     |
|     | Val       |           | Pro         | Ala    | Asp       | Val   |             | Leu   | Phe      | GIU      | GTĀ          |              | Leu          | vaı   | Phe       | Tyr    |   |     |
| 139 |           | 130       | _           |        |           |       | 135         |       |          | _        | _            | 140          |              |       | _         | _,     |   |     |
|     |           | Gln       | Glu         | Ile    | Arg       |       | Met         | Phe   | His      | Leu      |              | Leu          | Phe          | Val   | Asp       |        |   |     |
|     | 145       |           |             |        |           | 150   |             |       |          |          | 155          |              |              | _     |           | 160    |   |     |
|     | Asp       | Ser       | Asp         | Val    |           | Leu   | Ser         | Arg   | Arg      |          | Leu          | Arg          | Asp          | Val   | Arg       | Arg    |   |     |
| 143 |           |           |             |        | 165       |       | _           |       | _        | 170      |              |              |              |       | 175       |        |   |     |
|     | Gly       | Arg       | Asp         |        | Glu       | Gln   | Ile         | Leu   |          | Gln      | Tyr          | Thr          | Thr          |       | Val       | Lys    |   |     |
| 145 |           |           |             | 180    |           |       |             |       | 185      |          |              |              |              | 190   |           |        |   |     |
| 146 | Pro       | Ala       | Phe         | Glu    | Glu       | Phe   | Cys         |       | Pro      | Thr      | Lys          | Lys          |              | Ala   | Asp       | Val    |   |     |
| 147 |           |           | 195         |        |           |       |             | 200   |          |          |              |              | 205          |       |           |        |   |     |
| 148 | Ile       | Ile       | Pro         | Arg    | Gly       | Val   | Asp         | Asn   | Met      | Val      | Ala          | Ile          | Asn          | Leu   | Ile       | Val    |   |     |
| 149 |           | 210       |             |        |           |       | 215         |       |          |          |              | 220          |              |       |           |        |   |     |
| 150 | Gln       | His       | Ile         | Gln    | Asp       | Ile   | Leu         | Asn   | Gly      | Asp      | Ile          | Cys          | Lys          | Trp   | His       | Arg    |   |     |
|     | 225       |           |             |        |           | 230   |             |       |          |          | 235          |              |              |       |           | 240    |   |     |
| 152 | Gly       | Gly       | Ser         | Asn    | Gly       | Arg   | Ser         | Tyr   | Lys      | Arg      | Thr          | Phe          | Ser          | Glu   | Pro       | Gly    |   |     |
| 153 |           |           |             |        | 245       |       |             |       |          | 250      |              |              |              |       | 255       |        |   |     |
| 154 | Asp       | His       | Pro         | Gly    | Met       | Leu   | Thr         | Ser   | _        | Lys      | Arg          | Ser          | His          | Leu   | Glu       | Ser    |   |     |
| 155 |           |           |             | 260    |           |       |             |       | 265      |          |              |              |              | 270   |           |        |   |     |
| 156 | Ser       | Ser       | Arg         | Pro    | His       |       |             |       |          |          |              |              |              |       |           |        |   |     |
| 157 |           |           | 275         |        |           |       |             |       |          |          |              |              |              |       |           |        |   |     |
| 159 | <210      | )> SI     | EQ II       | ои с   | : 3       |       |             |       |          |          |              |              |              |       |           |        |   |     |
| 160 | <21:      | L> LI     | ENGTI       | H: 8   | 34        |       |             |       |          |          |              |              |              |       |           |        |   |     |
| 161 | <212      | 2> T      | YPE:        | DNA    |           |       |             |       |          |          |              |              |              |       |           |        |   |     |
| 162 | <21.      | 3> 01     | RGAN        | ISM:   | Homo      | sag   | piens       | 3     |          |          |              |              |              |       |           |        |   |     |
| 164 | <400      | )> SI     | EQUE        | NCE:   | 3         |       |             |       |          |          |              |              |              |       |           |        |   |     |
|     |           |           |             |        |           |       |             |       |          |          |              |              |              |       |           | ccgcac |   | 60  |
| 166 | cago      | egge      | cct 1       | cct    | gatag     | gg gg | gtgag       | gegg  | c ggd    | cact     | gcca         | gcgg         | gaag         | gtc 9 | gacc      | gtgtgt |   | 120 |
|     |           |           |             |        |           |       |             |       |          |          |              |              |              |       |           | gtggtc |   | 180 |
|     |           |           |             |        |           |       |             |       |          |          |              |              |              |       |           | gccttg | : | 240 |
|     |           |           |             |        |           |       |             |       |          |          |              |              |              |       |           | aggact |   | 300 |
|     |           |           |             |        |           |       |             |       |          |          |              |              |              |       |           | acacac | : | 360 |
|     |           |           |             |        |           |       |             |       |          |          |              |              |              |       |           | ggcatc | 4 | 420 |
|     |           |           |             | _      |           |       |             |       |          |          |              |              |              |       |           | gacacc | 4 | 480 |
|     |           |           |             |        |           |       |             |       |          |          |              |              |              |       |           | gacctg | ! | 540 |
|     |           |           |             |        |           |       |             |       |          |          |              |              |              |       |           | tgcctg | ( | 600 |
|     |           | -         |             | ,      |           |       |             |       |          |          |              |              |              |       |           |        |   |     |



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| 175 c<br>176 a<br>177 g | acc  | tgat           | cg to        | gcag      | caca:      | t cc  | agga<br>acaa | catt<br>acqq | acc       | aatg<br>tttt | grg<br>ctg | agec  | aggg  | ga c  | cacc         |            | 660<br>720<br>780 |
|-------------------------|------|----------------|--------------|-----------|------------|-------|--------------|--------------|-----------|--------------|------------|-------|-------|-------|--------------|------------|-------------------|
| 177 g<br>178 a          | tac  | tgac           | ct c         | tggc      | aaac       | g gt  | caca         | tttg         | gag       | tcca         | gca        | gcag  | accc  | ca c  | tga          |            | 834               |
| 180 <                   | 210  | > SE           | Q ID         | NO:       | 4          | -     |              |              |           |              |            |       |       |       |              |            |                   |
| 181 <                   | 211  | > LE           | -<br>NGTH    | : 23      | 1          |       |              |              |           |              |            |       |       |       |              |            |                   |
| 182 <                   | 212  | > TY           | PE:          | PRT       |            |       |              |              |           |              |            |       |       |       |              |            |                   |
| 183 <                   | 213  | > OR           | GANI         | SM:       | Arti       | fici  | al S         | eque         | nce       |              |            |       |       |       |              |            |                   |
| 105 /                   | 220  | > FF           | <b>ATTTR</b> | E :       |            |       |              |              |           |              |            |       |       |       |              |            |                   |
| 186 <                   | 223  | > OT           | HER          | INFO      | RMAT       | ION:  | Con          | sens         | us a      | minc         | acı        | d se  | quen  | ce    |              |            |                   |
|                         |      |                | OTTEN        |           | Λ          |       |              |              |           |              |            |       |       |       | V = 1        | λla        |                   |
| 188 <<br>189 V          | al   | Ile            | Gly          | Val       | Ala        | Gly   | Ser          | Ser          | Gly       | Ala          | GIĀ        | гла   | THE   | THE   | 15           | AIG        |                   |
|                         | -    |                |              |           | _          |       |              |              |           | 10           |            |       |       |       | 10           |            |                   |
| 190<br>191 A            | arg  | Arg            | Ile          | Val       | Ser        | Ile   | Phe          | Gly          | Arg       | GLu          | GIA        | vaı   | PIO   | 30    | ALG          | 011        |                   |
|                         |      |                |              | 20        |            |       |              |              | 2.5       |              |            |       |       | 50    |              |            |                   |
| 192<br>193 I            | [le  | Glu            | Gly          | Asn       | Pro        | Asp   | Ser          | Asn          | Tnr       | GLY          | Asp        | 261   | 45    | шси   | AT 9         |            |                   |
| 404                     |      |                | 25           |           |            |       |              | 40           |           |              |            |       | 43    |       |              |            |                   |
| 194<br>195 <i>I</i>     | Asp  | Arg            | Phe          | Tyr       | Met        | Asp   | Leu          | His          | Leu       | GIU          | ASP        | 60    | пуз   | n. 9  |              | 021        |                   |
| 196                     |      | 50             |              |           |            |       | 55           | <b>a</b>     | D         | C1.,         | ۸la        |       | Δen   | Phe   | Asp          | Leu        |                   |
| 196<br>197 <i>I</i>     | Asn  | Lys            | His          | Tyr       | Ser        | Phe   | Phe          | ser          | PIO       | GIU          | 75         | ASII  | пор   | 1110  |              | 80         |                   |
| 198 (                   | 65   |                |              |           |            | 70    | <b>~</b> 1.  | <b>.</b>     | T         | C1.,         | 73<br>Clu  | T.vc  | Ser   | Val   | Asp          |            |                   |
| 198 (<br>199 ]          | Leu  | Tyr            | Glu          | Val       | Phe        | Lys   | GIU          | Leu          | гаг       | 90           | GIY        | цуз   | 001   |       | 95           |            |                   |
| 200                     |      |                |              |           | 85         |       | _,           | a1           | <b>61</b> | 30           | 7.00       | Dro   | Δsn   | Glv   |              | Glu        |                   |
| 200<br>201              | Pro  | Ile            | Tyr          | Asn       | His        | Val   | Tnr          | GLY          | GIU       | AIG          | АБР        | FIO   | пор   | 110   |              | -          |                   |
| 202                     |      |                |              | 100       |            | _     | m            | D===         | 105       | Tou          | Tle        | Glu   | Glv   |       | Asp          | Val        |                   |
| 202<br>203              | Pro  | Gly            | Thr          | Phe       | Thr        | Asp   | Trp          | 120          | GIU       | Deu          | 110        | Olu   | 125   |       |              |            |                   |
| 204<br>205              |      |                | 115          |           | <b>~</b> 3 | T     | 114.0        | 712          | T All     | ጥኒንዮ         | Asp        | Glu   |       | Glu   | Val          | Asn        |                   |
|                         | Leu  |                |              | Glu       | GIY        | ьeu   | 135          | ніа          | пец       | - 7 -        | p          | 140   | 5     |       |              |            |                   |
| 206                     |      | 130            |              | <b>-</b>  | T          | N a m | 133          | Tare         | Tle       | Ψvr          | Val        |       | Pro   | Asp   | Ile          | Asp<br>160 |                   |
|                         |      |                | GIn          | Leu       | ьeu        | 150   | пец          | пуз          | 110       | -1-          | 155        |       |       | _     |              | 160        |                   |
| 208                     | 145  | <b>03</b>      | T            | 717       | 7 ~~       | T.VC  | Tle          | Gln          | Ara       | Asp          | Met        | Ala   | Glu   | Arg   | Gly          | His        |                   |
|                         |      |                |              |           | 165        |       |              |              |           | 1/0          |            |       |       |       | <b>_</b> , _ |            |                   |
| 210                     | a    | T 011          | Clu          | C1 v      | Val        | T.eu  | Asp          | Ser          | Ile       | Glu          | Lys        | Arg   | Arg   | Lys   | Pro          | Asp        |                   |
|                         |      |                |              | 100       |            |       |              |              | 100       | )            |            |       |       |       |              |            |                   |
| 212                     | ш    | . v-1          | λen          | TVr       | Tle        | Αla   | Pro          | Gln          | Phe       | Ser          | Tyr        | Ala   | Asp   | Leu   | Ile          | Ile        |                   |
| 014                     |      |                | 105          |           |            |       |              | 200          | )         |              |            |       | 200   |       |              |            |                   |
| 214                     | Cln  | λνα            | Val          | Pro       | Thr        | Val   | Asp          | Thr          | Ser       | Asn          | Asp        | Phe   | Ile   | Ala   | Lys          | Ile        |                   |
| 213                     |      | 210            |              |           |            |       | 215          | ,            |           |              |            | 220   |       |       |              |            |                   |
| 210                     | T16  | Pro            | Val          | Ara       | Asc        | Glu   | Leu          | l            |           |              |            |       |       |       |              |            |                   |
| 217                     |      |                | , , , , ,    |           |            | 230   | )            |              |           |              |            |       |       |       |              |            |                   |
| 210                     | /21  | ,<br>LO> S     | EO I         | D NO      | ): 5       |       |              |              |           |              |            |       |       |       |              |            |                   |
| 220                     | <21  | 11> I          | ENGT         | H: 1      | .25        |       |              |              |           |              |            |       |       |       |              |            |                   |
|                         |      | 12> I          |              |           |            |       |              |              |           |              |            |       |       |       |              |            |                   |
| 222                     | <21  | L3> C          | RGAN         | IISM:     | Art        | ific  | cial         | Sequ         | ience     | €            |            |       |       |       |              |            |                   |
| 005                     | -00  | 10× E          | TO A IDIT    | DE.       |            |       |              |              |           |              |            | _     |       |       |              |            |                   |
| 226                     | <2.2 | 20> F<br>23> C | THE          | RINE      | ORM        | OITA  | 1: C         | onsei        | nsus      | ami          | no a       | cid s | seque | ence  |              |            |                   |
|                         |      |                | TOOTT        | THE PARTY |            |       |              |              |           |              |            |       |       |       | <b>. %</b>   | - 3        |                   |
| 229                     | Lei  | ı Lys          | s Ile        | e Phe     | e Val      | L Ası | o Thi        | r As         | p Ala     | a As         | p Va       | l Arg | J Le  | 1 116 | e Arg        | g Arg      |                   |
|                         |      | -              |              |           |            |       |              |              |           |              |            |       |       |       |              |            |                   |

Input Set : N:\jumbos\896522.txt

```
10
231 Ile Lys Arg Asp Val Asn Glu Arg Gly Arg Asp Ile Glu Ser Val Ile
                                    25
233 Glu Gln Tyr Met Lys Phe Val Lys Pro Met Tyr Glu Gln Phe Ile Glu
        35
                                40
235 Pro Thr Lys Lys Tyr Ala Asp Ile Ile Ile Pro Arg Gly Gly Asp Asn
237 His Val Ala Ile Asp Leu Ile Val Gln His Ile Gln Ser Ile Leu Asn
                                            75
239 Glu Gly Leu Ser Ser Gln His Thr Asn Tyr Met Val Asn Arg Ser Tyr
                    85
241 Lys Arg Thr Phe Ser Glu Pro Gly Asp His Pro Gly Tyr Thr Pro Ser
               100
                                   105
243 Gly Lys Arg Gln His Leu Glu Ser Ser Arg Pro His
244 115
                                120
246 <210> SEQ ID NO: 6
247 <211> LENGTH: 124
248 <212> TYPE: PRT
249 <213> ORGANISM: Artificial Sequence
251 <220> FEATURE:
252 <223> OTHER INFORMATION: Consensus amino acid sequence
254 <400> SEQUENCE: 6
255 Ile Ile Gly Ile Ala Gly Gly Ser Gly Ser Gly Lys Thr Thr Ile Ala
257 Arg Lys Ile Val Glu Met Leu Asn Lys Pro Gly Gln Glu Lys Val Val
               20
259 Ile Ile Ser Gln Asp Asn Tyr Tyr Lys Asp Leu Ser Glu Leu Asp Met
           35
                                40
261 Glu Glu Arg Lys Glu Asn Asn Tyr Asn Phe Asp His Pro Asp Ala Phe
                            55
263 Asp Phe Asp Leu Leu Tyr Glu His Leu Lys Asx Leu Lys Asn Gly Lys
265 Ser Val Glu Val Pro Ile Tyr Asp Phe Lys Thr His His Arg Arg Lys
                   85
                                       90
267 Asp Glu Thr Val Thr Ile Glu Pro Ala Asp Val Ile Ile Leu Glu Gly
                                   105
                                                       110
269 Ile Tyr Ala Leu Tyr Asp Glu Arg Ile Arg Asp Leu
270
           115
```

VERIFICATION SUMMARY DATE: 01/26/2002 PATENT APPLICATION: US/09/896,522 TIME: 16:07:14

Input Set : N:\jumbos\896522.txt



OIPE

RAW SEQUENCE LISTING DATE: 01/19/2002 PATENT APPLICATION: US/09/896,522 TIME: 11:19:29

Input Set : D:\38155-20017 SEQ Listing.txt
Output Set: N:\CRF3\01192002\1896522.raw

Does Not Comply
Corrected Diskette Needed

```
3 <110> APPLICANT: Glucksmann, Maria A.
5 <120> TITLE OF INVENTION: 57658, A NOVEL HUMAN URIDINE KINASE AND
6 USES THEREOF
8 <130> FILE REFERENCE: 381552001700
10 <140> CURRENT APPLICATION NUMBER: 09/896,522
11 <141> CURRENT FILING DATE: 2001-06-28
13 <150> PRIOR APPLICATION NUMBER: 60/216,503
14 <151> PRIOR FILING DATE: 2000-06-30
16 <160> NUMBER OF SEQ ID NOS: 6
18 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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## ERRORED SEQUENCES

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246 <210> SEQ ID NO: 6
    247 <211> LENGTH: 124
    248 <212> TYPE: PRT
    249 <213> ORGANISM: Artificial Sequence
    251 <220> FEATURE:
    252 <223> OTHER INFORMATION: Consensus amino acid sequence
    254 <400> SEQUENCE: 6
    255 Ile Ile Gly Ile Ala Gly Gly Ser Gly Ser Gly Lys Thr Thr Ile Ala
                          5
    256 1
    257 Arg Lys Ile Val Glu Met Leu Asn Lys Pro Gly Gln Glu Lys Val Val
                                         25
                    20
    259 Ile Ile Ser Gln Asp Asn Tyr Tyr Lys Asp Leu Ser Glu Leu Asp Met
                                     40
    261 Glu Glu Arg Lys Glu Asn Asn Tyr Asn Phe Asp His Pro Asp Ala Phe
    263 Asp Phe Asp Leu Leu Tyr Glu His Leu Lys Asx Leu Lys Asn Gly Lys
                             70
    265 Ser Val Glu Val Pro Ile Tyr Asp Phe Lys Thr His His Arg Arg Lys
                                             90
                         85
    267 Asp Glu Thr Val Thr Ile Glu Pro Ala Asp Val Ile Ile Leu Glu Gly
                                         105
     269 Ile Tyr Ala Leu Tyr Asp Glu Arg Ile Arg Asp Leu
     270
                 115
E--> 272 (1)
```

VERIFICATION SUMMARY

DATE: 01/19/2002

PATENT APPLICATION: US/09/896,522

TIME: 11:19:30

Input Set : D:\38155-20017 SEQ Listing.txt Output Set: N:\CRF3\01192002\1896522.raw

L:272 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:6

| N  | umber: 09/896,522 #3 CRF Processing Date: 1/26/200   |
|----|--|
| •• | Changed a file from non-ASCII to ASCII ENTERED erifled by: (STIC's   |
|    | Changed the margins in cases where the sequence text was "wrapped" down to the next line.  |
|    | Edited a format error in the Current Application Data section, specifically:   |
|    | Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other                                    |
|    | Added the mandatory heading and subheadings for "Current Application Data".  |
|    | Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.  |
|    | Changed the spelling of a mandatory field (the headings or subheadings), specifically:   |
|    | Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:  |
|    | Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:   |
|    | Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place. |
|    | Inserted colons after headings/subheadings. Headings edited included:  |
| _  | Deleted extra, invalid, headings used by an applicant, specifically:   |
|    | Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end of file page numbers throughout text; other invalid text, such as                             |
|    | Inserted mandatory headings, specifically:   |
|    | Corrected an obvious error in the response, specifically:  |
| _  | Edited identifiers where upper case is used but lower case is required, or vice versa.   |
|    | Corrected an error in the Number of Sequences field, specifically:   |
| ,  | A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.   |
| D  | eleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error us to a Patentin bug). Sequences corrected:  |
| dı | to to a rational bogy. Godachood corrected:  |

<sup>\*</sup>Examin r: Th abov corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95